## REMARKS/ARGUMENTS

Claims 1-33 are pending in the present application. The Examiner has rejected claims 1-33. Applicant respectfully requests reconsideration of pending claims 1-33.

The Examiner has rejected claims 1-33 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,148,001 to Soirinsuo et al. in view of U.S. Patent No. 6,026,090 to Benson et al. Applicant respectfully disagrees.

Regarding claims 1, 10, 17, and 25, Applicant submits the cited references do not render the claimed subject matter unpatentable. For example, Applicant submits the cited references do not teach or suggest "buffering cells of each of the plurality of virtual connections into a corresponding one of a plurality of cell buffers...." The Examiner cites col. 10, lines 58-60, of Soirinsuo as allegedly disclosing such, but col. 10, lines 58-60, state, "storing the cells for each of the virtual channel connections in a buffer until a complete packet has been received." Applicant submits that "storing the cells...in a buffer..." does not teach "buffering cells...into a corresponding one of a plurality of cell buffers...." Pursuant to MPEP § 2142, Applicant submits the Examiner has not alleged and factually supported any *prima facie* conclusion of obviousness with respect to the element of "buffering." Thus, Applicant submits the cited references neither anticipate nor render obvious such element.

The Examiner cites "switch controller comprising state machine 1130, see col. 10, lines 16-18" as allegedly disclosing queuing the identity of a virtual connection when cells that constitute a complete packet are buffered in a cell buffer. However, col. 10, lines 16-18, state, "The switch controller 1120 may include a state machine 1130 for monitoring state information to identify when a complete frame has been received." Applicant submits "monitoring state information to identify when a complete frame has been received" does not teach "queuing identity of a virtual connection in a queue when cells that constitute a complete packet are buffered in a corresponding cell buffer."

The Examiner cites "(e.g., service classes, see col. 7, lines 37-50; and payload type PT, see col. 9, lines 7-32)" as allegedly disclosing obtaining priority information for the merged virtual connection. However, col. 7, lines 37-50, does not appear to contain any reference to obtaining priority information for the merged virtual connection. Also, col. 9, lines 9-12, state, "...Payload Type (PT) identification codes are used to identify the reception of the complete packet," which, Applicant contends, does not disclose obtaining priority information for the merged virtual connection. Pursuant to MPEP § 2142,

Applicant submits the Examiner has not alleged and factually supported any *prima facie* conclusion of obviousness with respect to the element of "obtaining prioritization information for the merged virtual connection." Thus, Applicant submits the cited references neither anticipate nor render obvious such element.

The Examiner cites "VPI/VCI Translation in FIG. 9" as allegedly disclosing generating a cell stream for the merged virtual connection based on the prioritization information and virtual connection identities stored in the queue, wherein the merged virtual connection is identified by a merged virtual connection identifier, wherein each cell in the cell stream includes the merged virtual connection identifier. However, "VPI/VCI Translation 934" of Fig. 9 is depicted as merely a plain rectangle in Fig. 9. Moreover, Applicant can find no description of "VPI/VCI Translation 934" in the specification besides the mere mention of its existence in col. 9, lines 40 and 41. Accordingly, Applicant submits "VPI/VCI Translation 934" fails to disclose generating a cell stream for the merged virtual connection based on the prioritization information and virtual connection identities stored in the queue, wherein the merged virtual connection is identified by a merged virtual connection identifier, wherein each cell in the cell stream includes the merged virtual connection identifier. More specifically, as one example, Applicant submits the Examiner has failed to identify any teaching or suggestion of "generating a cell stream for the merged virtual connection based on the prioritization information and virtual connection identities stored in the queue...." As another example, Applicant submits the Examiner has failed to identify any meaningful teaching or suggestion of "...wherein the merged virtual connection is identified by a merged virtual connection identifier...." As yet another example, Applicant submits the Examiner has failed to identify any teaching of "...wherein each cell in the cell stream includes the merged virtual connection identifier." Pursuant to MPEP § 2142, Applicant submits the Examiner has not alleged and factually supported any *prima facie* conclusion of obviousness with respect to the element of "generating a cell stream...." Thus, Applicant submits the cited references neither anticipate nor render obvious such element.

While the Examiner acknowledges "Soirinsuo may not specifically disclose queuing the identity (e.g., VCI) in a specific queue configuration," the Examiner alleges "Soirinsuo teaches the step of scheduling virtual connections in accordance with the completion of buffered packets (e.g., see col. 9, lines 15-16) via a switch controller (e.g., see col. 10, lines 16-29)." The Examiner further alleges Benson teaches "queuing an identifier in a queue," citing complete pointer 128. However, Applicant notes the Examiner does not allege Benson teaches "queuing identify of a virtual connection in a

queue...." Rather, col. 5, lines 8-11, of Benson state, "A receive local buffer 122 joined to the complete queue 124 preferably has a complete pointer 128 to a next receive local buffer 122 in the complete queue 124." The Examiner alleges "complete queue 124" teaches "when cells that constitute a complete queue are buffered in a corresponding cell buffer." However, Applicant notes the Examiner does not allege Benson teaches "when cells that constitute a complete packet are buffered in a corresponding cell buffer." Moreover, Applicant submits Benson does not appear to disclose "cells that constitute a complete queue," but rather, as noted above, teaches, in col. 5, line 9, "complete queue 124 preferably has a complete pointer," not "cells."

The Examiner states, "Benson further teaches that it is well known in the art to also identify when cells that constitute a complete packet are buffered (e.g., see col. 2, lines 58-67), when suitable memory is available." However, Applicant submits Benson fails to disclose or suggest, "queuing the identity of a virtual connection in a queue when cells that constitute a complete packet are buffered in a corresponding cell buffer."

Regarding claim 25, the Examiner states, "Benson teaches dequeuing of cells is performed in intervals, where different classes receive priority for different ones of the intervals, citing col. 9, line 33, through col. 10, line 65. Within the portion of Benson cited by the Examiner, the only reference Applicant can find to priority is in col. 10, lines 55-60, which state, "A predetermined portion of the request FIFO 210 is preferably dedicated for read requests for connections having a predefined priority, and when the amount of memory consumed in the request FIFO 210 is above a predetermined threshold only read requests having the predefined priority are placed into the request FIFO 210." Thus, Applicant submits the cited portion of Benson does not teach dequeuing of cells is performed in intervals, where different classes receive priority for different ones of the intervals, but rather teaches away from such feature, instead teaching that "only read requests having the predefined priority are placed into the request FIFO 210."

For the foregoing reasons, Applicant submits the cited references, either alone or in combination, fail to anticipate or render obvious the claimed invention as set forth in claims 1, 10, 17, and 25. Thus, Applicant submits claims 1, 10, 17, and 25 are in condition for allowance.

Regarding claims 2, 4, 18, and 26, the Examiner states, "Soirinsuo teaches dequeuing cells from the plurality of buffers to produce the cell stream, wherein dequeuing of the cells is based on the

prioritization information (e.g., see col. 9, line 33, through col. 10, line 65)." Applicant respectfully disagrees. Applicant submits that the cited references, either alone or in combination, fail to render obvious the claimed invention. For example, while the Examiner cites col. 9, line 33, through col. 10, line 65 of the Soirinsuo reference as teaching the claimed invention as set forth in claims 2, 14, 18, and 26, Applicant can find no disclosure within the cited portion that would teach or suggest the claimed invention. While the assertion that "scheduler functions can be extended to support fair or weighted scheduling, priorities, etc." (col. 10, lines 30 and 31) occurs within the cited portion, such assertion is not accompanied by any explanation of how such extension would be achieved, nor is any other reference cited to provide such teaching. Moreover, Applicant submits that portions of the Soirinsuo reference cited by the Examiner do not appear to disclose features of the base claims from which claims 2, 14, 18, and 26 depend, as noted above. Thus, Applicant submits that the cited references, either alone or in combination, fail to render obvious the claimed invention as set forth in claims 2, 14, 18, and 26. Therefore, Applicant submits that claims 2, 14, 18, and 26 are in condition for allowance.

Regarding claims 3, 11, 13, 19, and 27, while the Examiner cites "(e.g., service classes, see col. 7, lines 37-50; and payload type PT, see col. 9, lines 7-32)" as teaching the features of claims 3, 11, 13, 19, and 27, Applicant respectfully disagrees. For example, Applicant can find no teaching in the cited portion of Soirinsuo of "...wherein each of the plurality of queues corresponds to a class of the plurality of classes...." As another example, Applicant can find no teaching in the cited portion of Soirinsuo of "...wherein queuing the identify of a virtual connection further comprises queuing the identity of the virtual connection into a corresponding one of the plurality of queues based on class of the virtual connection...." Pursuant to MPEP § 2142, Applicant submits the Examiner has not alleged and factually supported any *prima facie* conclusion of obviousness with respect to the features of claims 3, 11, 13, 19, and 27. Thus, Applicant submits the cited references neither anticipate nor render obvious such features. Therefore, Applicant submits claims 3, 11, 13, 19, and 27 are in condition for allowance.

Regarding claims 4, 12, 20, and 28, the Examiner alleges col. 5, liens 5-15, and FIG. 2 regarding pointer 128 disclose the features of claims 4, 12, 20, and 28. Applicant respectfully disagrees. For example, while claim 4 includes "...wherein each of the plurality of queues is a linked list...," the cited portion of Benson includes only a single "queue" 124. As another example, claim 4 includes "of a corresponding one of the linked lists based on class of the virtual connection." Applicant can find no reference to "linked lists," "a corresponding one of the linked lists," or "based on

class of the virtual connection" in the cited portion of Benson. Thus, Applicant submits the cited references, either alone or in combination, fail to anticipate or render obvious the claimed invention as set forth in claims 4, 12, 20, and 28. Therefore, Applicant submits claims 4, 12, 20, and 28 are in condition for allowance.

Regarding claims 5, 21, and 29, Applicant can find no reference in the cited portion of Soirinsuo of "wherein the prioritization information allocates available bandwidth on the merged virtual connection based on class." Thus, Applicant submits the cited references, either alone or in combination, fail to anticipate or render obvious the claimed invention as set forth in claims 5, 21, and 29. Therefore, Applicant submits claims 5, 21, and 29 are in condition for allowance.

Regarding claims 6, 22, and 30, the Examiner asserts Soirinsuo discloses "a prioritization table" but cites "(e.g., scheduler supporting priorities, see col. 10, lines 22-42)," which do not appear to disclose "a prioritization table." Thus, Applicant submits the cited references, either alone or in combination, fail to anticipate or render obvious the claimed invention as set forth in claims 6, 22, and 30. Therefore, Applicant submits claims 6, 22, and 30 are in condition for allowance.

Regarding claims 7, 23, and 31, Applicant submits the cited references, either alone or in combination, fail to render obvious the claimed invention. For example, Applicant has presented arguments for the allowability of claims from which claims 7, 23, and 31 depend. Thus, Applicant submits claims 7, 23, and 31 are also in condition for allowance.

Regarding claims 8, 24, and 32, Applicant submits the cited references, either alone or in combination, fail to render obvious the claimed invention. For example, Applicant has presented arguments for the allowability of claims from which claims 8, 24, and 32 depend. Thus, Applicant submits claims 8, 24, and 32 are also in condition for allowance.

Regarding claims 9 and 33, Applicant submits that the cited references, either alone or in combination, fail to render obvious the claimed invention as set forth in claims 9 and 33. For example, while the Examiner asserts that "450 $VCC_{1-n}$" of Soirinsuo constitutes teaching of a merged virtual connection, Applicant notes that col. 8, lines 15-18, teaches away, stating, "The ATM switching system 430 then routes the cells from each AAL-5 connection source 402-410 to an AAL-5 connection destination 440 by using n VCCs 450." Furthermore, the Examiner acknowledges that Soirinsuo may not specifically disclose that, "e.g., a first virtual connection (e.g., $VCC_1$) comprises a merged virtual

connection and that the merged virtual connection is further merged with a second virtual connection." Thus, Applicant submits that the cited references, either alone or in combination, fail to render obvious the claimed invention as set forth in claims 9 and 33. Therefore, Applicant submits that claims 9 and 33 are in condition for allowance.

Regarding claims 15 and 16, the Examiner cites MPEP § 2144.03(c) and states "the limitations recited in these claims comprise well-known art and are hereafter taken to be admitted prior art." However, Applicant notes that, in response to the first Office action, Applicant challenged the Examiner's assertion, without citation of any references or other evidence to support it, that it is well known in the art for such a system to be located in the ingress or egress portion of a communication switch. Applicant notes the Examiner still has not presented any evidence to substantiate that assertion. Moreover, Applicant has presented arguments for the allowability of the claim from which claims 15 and 16 depend. Thus, Applicant submits claims 15 and 16 are in condition for allowance.

In conclusion, Applicant has overcome all of the Office's rejections, and early notice of allowance to this effect is earnestly solicited. If, for any reason, the Office is unable to allow the Application on the next Office Action, and believes a telephone interview would be helpful, the Examiner is respectfully requested to contact the undersigned attorney.

Respectfully submitted,

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